

DOCUMENT NO. 44
NO CHANGE IN CLASS. ☐☐ DECLASSIFIEDCLASS. CHANGED TO: TS S C2010

NEXT REVIEW DATE: _____

AUTH: HR 70-2

DATE: 1/21/70 REVIEWER: 010956
MEMORANDUM FOR: THE RECORD~~CONFIDENTIAL~~

27 September 1954

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SUBJECT: Status of P-101B, Communications System, I. R. []

1. The last project monitor by APD on 9 and 10 September found [] putting the finishing touches on the first breadboard system. Tests on this system were to take place by 13 September.

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2. At the last project monitor specifications for transistorized amplifier circuitry were obtained from [] These were to be furnished [] for the design of two breadboard units. A recent conference with [] showed that little would be gained by the use of transistors if the cost were to be considered (see Memorandum for The Record, P-101B, dated 27 September 1954). Consequently, work with [] has been called off.

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3. A recent (23 September) conference with [] of [] at Washington has indicated that there is little chance of designing a quiet motor generator within the size and weight limits set. The operation of this motor generator on ordinary kerosene is claimed by [] to be out of the question. [] was requested to query [] (silencing problem) regarding the possibilities of:

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a. Running the engine on kerosene plus an additive (with magnetic ignition)

b. Successfully silencing the engine aid generator.

This information was requested so that a decision regarding continuing the engine-generator job might be made at our next project monitor (6 and 7 October).

4. The work order with [] regarding the use of compass and level or star sight and fuel together with a map or photograph for aligning the system has been approved and is being sent through Logistics Office.

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5. In a discussion between [] APD on 27 September, it was decided that the three major matters to be taken up at the next project monitor are:

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a. The power supply problem

b. The search-find problem

c. The apparent ignorance of [] on the subject of PbS detectors.

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On the power supply problem it was decided that lacking encouraging data from [] on the engine-generator by the 6th of October, work on the engine-generator should be cancelled. The alternative is the use of a vibrator supply operating from a six volt battery.

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On the search-find problem it was decided to:

(1) find out what [] plans to do about transmitter and receiver beamwidths and fine alignment.

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(2) suggest use of an I. R. telescope based on a commercial or non-classified image tube. Example: []

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(3) suggest consideration of visible light telescopic sight (night type with large aperture objective)

(4) suggest that use of compasses, levels, etc, although possible is not too desirable.

On the problem of the PbS cell and lack of knowledge thereof, it was decided that a visit by Raytheon to Eastman Kodak for information was appropriate.

[]
TSS/APD

Distribution:

✓ Orig. - P-101B
1 - Chrono

AST/bb

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